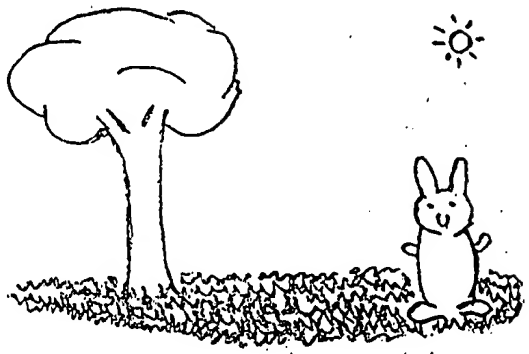

FIG. 1

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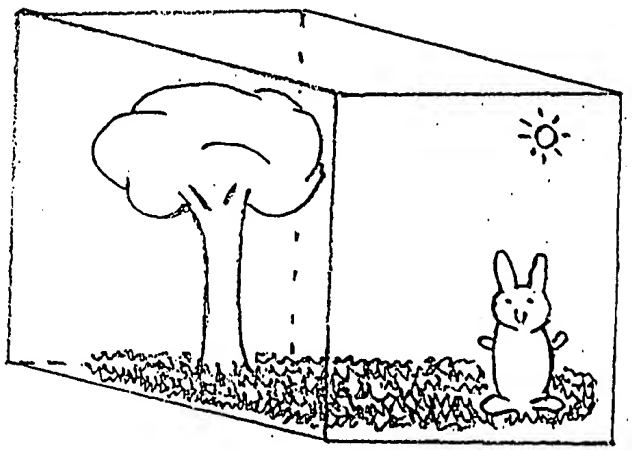


FIG. 2

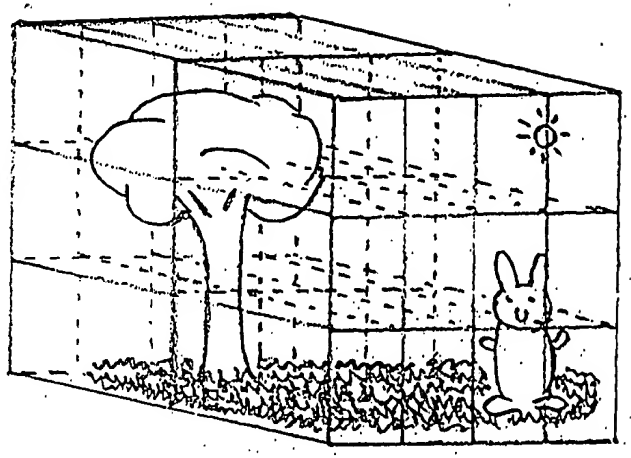


FIG. 3

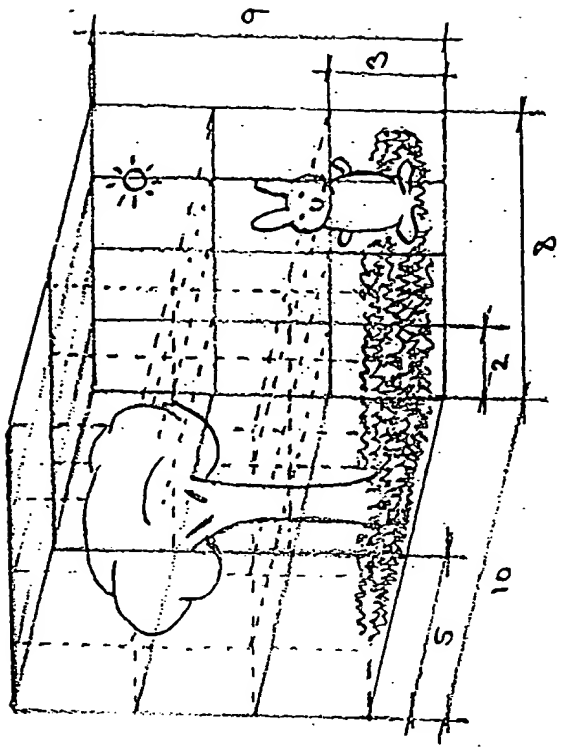
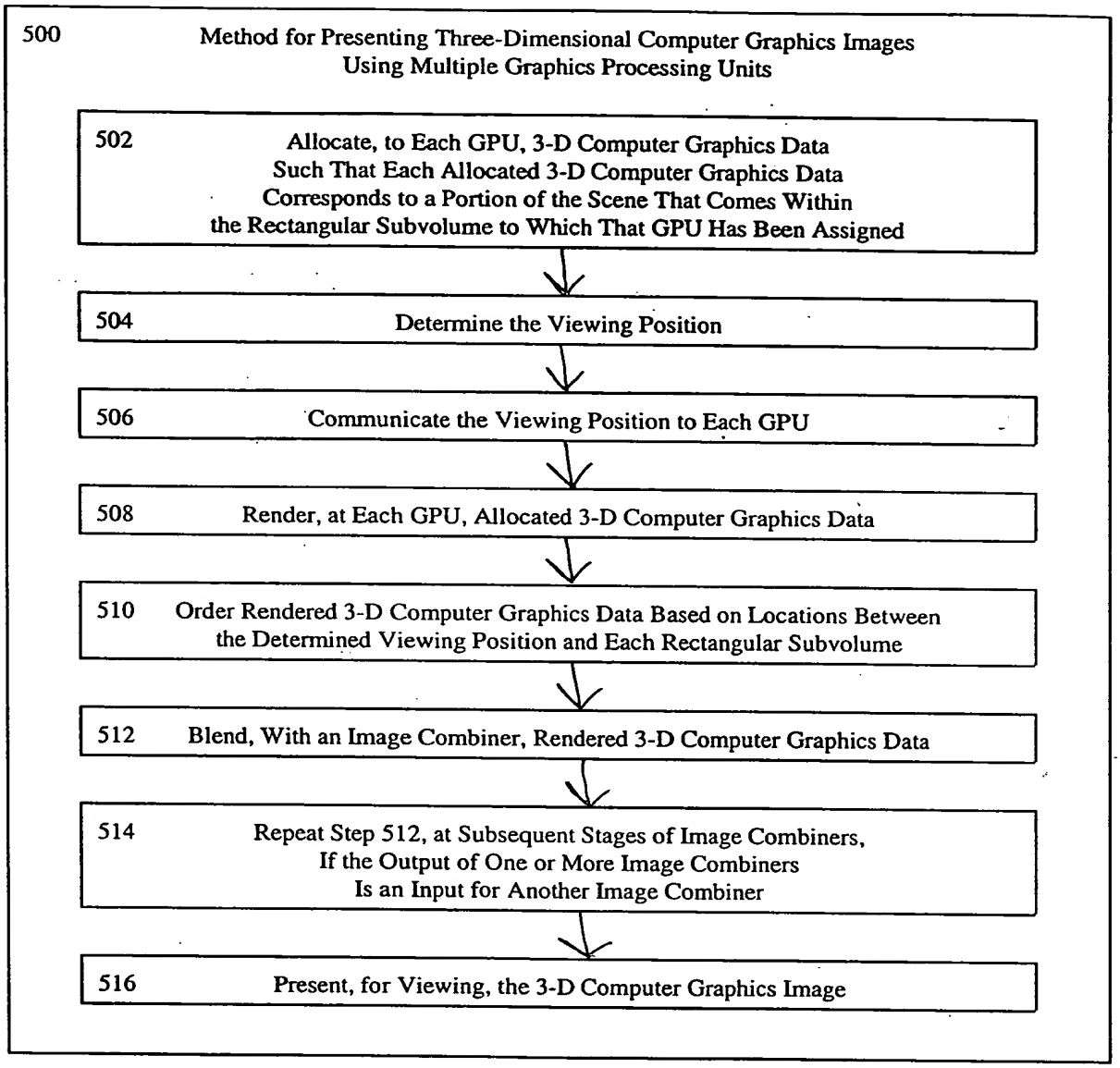


FIG. 4

US 6,000,350 - 12/14/1999

Figure 5


500
Method for Presenting Three-Dimensional Computer Graphics Images Using Multiple Graphics Processing Units
502
Allocate, to Each GPU, 3-D Computer Graphics Data Such That Each Allocated 3-D Computer Graphics Data Corresponds to a Portion of the Scene That Comes Within the Rectangular Subvolume to Which That GPU Has Been Assigned
504
Determine the Viewing Position
506
Communicate the Viewing Position to Each GPU
508
Render, at Each GPU, Allocated 3-D Computer Graphics Data
510
Order Rendered 3-D Computer Graphics Data Based on Locations Between the Determined Viewing Position and Each Rectangular Subvolume
512
Blend, With an Image Combiner, Rendered 3-D Computer Graphics Data
514
Repeat Step 512, at Subsequent Stages of Image Combiners, If the Output of One or More Image Combiners Is an Input for Another Image Combiner
516
Present, for Viewing, the 3-D Computer Graphics Image

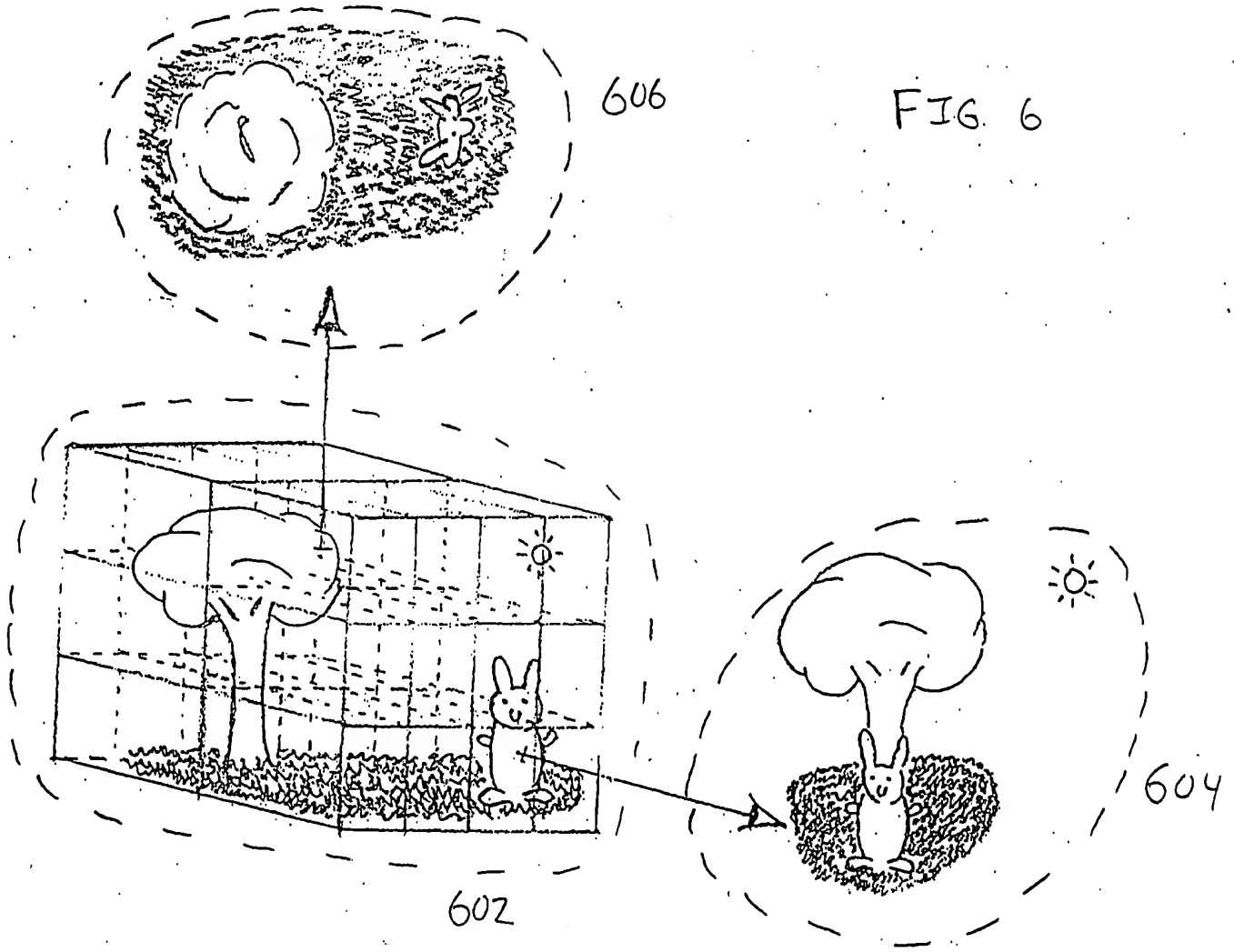
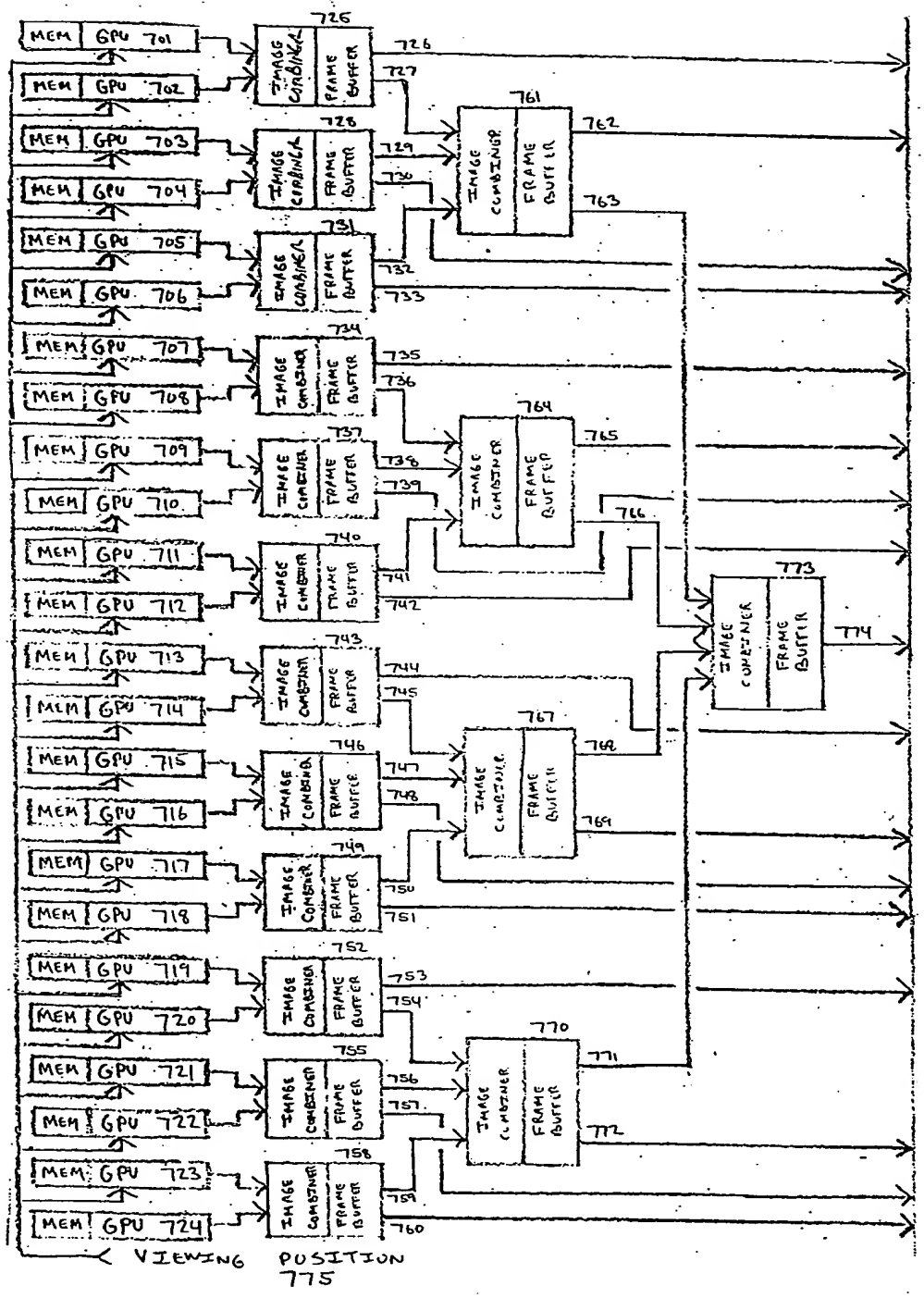


FIG. 6

FIG. 7


MEM
GPU 701
GPU 702
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GPU 723
GPU 724
IMAGE COMBINER
FRAME BUFFER
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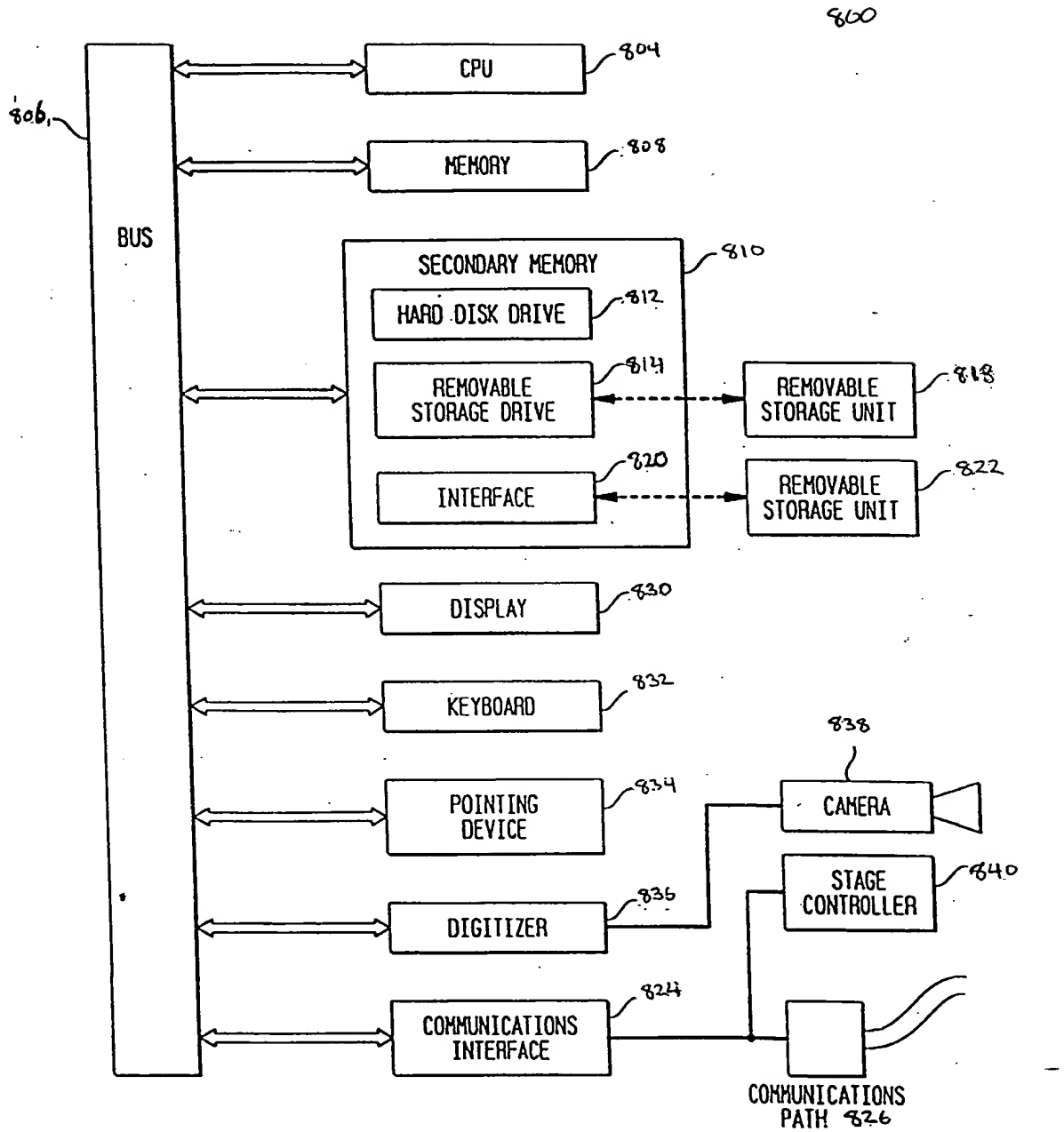
VIEWING POSITION
775

FIG. 8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SECONDARY MEMORY
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REMOVABLE STORAGE DRIVE
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REMOVABLE STORAGE UNIT
818
INTERFACE
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REMOVABLE STORAGE UNIT
822
DISPLAY
830
KEYBOARD
832
POINTING DEVICE
834
DIGITIZER
836
CAMERA
838
STAGE CONTROLLER
840
COMMUNICATIONS INTERFACE
824
COMMUNICATIONS PATH 826

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